

Major Feature of Weather Forecast up to 0830 hours IST of 25th February, 2013

- Rain/snow would occur at many places over Jammu & Kashmir.
- Rain/snow would occur at many places over Himachal Pradesh and Uttarakhand during next 48 hours and decrease thereafter.
- Rain/thundershowers would occur at many places over Punjab, Haryana & Delhi, Rajasthan and west Uttar Pradesh during next 48 hours and decrease thereafter.
- Rain/thundershowers would occur at a few places over east Uttar Pradesh.
- Rain/thundershowers would occur at one or two places over Madhya Pradesh on 22nd & 23rd and over east Madhya Pradesh and Chhattisgarh on 24th February.
- Rain/thundershowers would occur at one or two places over Andaman & Nicobar Islands.
- No significant change in minimum temperatures over northwest India and rise in minimum temperatures by 2-3°C over central and east India.
- Mainly dry weather would prevail over rest parts of the country.

Weather Warning during next 3 days

- Heavy rain/snow would occur at one or two places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand during next 48 hours.
- Thundersquall and /or hailstorm would occur at one or two places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, Rajasthan and west Uttar Pradesh during next 48 hours and over east Uttar Pradesh and north Madhya Pradesh on 23rd February.

Weather Outlook for subsequent 4 days from 25th February to 1st March, 2013

- Another western disturbance would affect western Himalayan region and adjoining northern plains.
- A fresh easterly wave would develop over Andaman Sea around 25th February.
- Mainly dry weather would prevail over rest parts of the country.

Salient Advisories for different regions of India

- In Northwest India, as rain is expected at many places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, Rajasthan and West Uttar Pradesh, farmers are advised to postpone irrigation, intercultural operation and application of plant protection measures and fertilisers in standing crops.
- In East India, as significant rainfall occurred in Araria, Arwal, Aurangabad, East Champaran, Gopalganj, Muzaffarpur, Patna, Rohtas, Saran, Sitamarhi, Vaishali and West Champaran districts of Bihar, Bokaro, Dhanbad, Giridih, Hazaribagh, Jamtara, Palamau and Ranchi districts of Jharkhand, Darjeeling district of West Bengal, and North, South and West Sikkim districts of Sikkim during last week, farmers are advised to postpone irrigation in these Districts. As mainly dry weather is likely to occur over the States of this region during the period, farmers in Odisha and West Bengal and remaining districts of Bihar and Jharkhand are advised to apply irrigation to the standing crops.
- In Central India, as significant rainfall occurred in all the districts of East Madhya Pradesh except Balaghat, Panna and Sagar districts and in Ashoknagar, Bhind, Burhanpur, Datia, Guna, Gwalior, Harda, Hosangabad, Morena, Sheopur and Shivpuri districts of West Madhya Pradesh and in Bilaspur, Korba, Koriya, Kawardha and Surguja districts in Chhattisgarh, postpone irrigation to the standing crops. Apply irrigation to the standing crops in Balaghat, Panna and Sagar districts in East Madhya Pradesh and in all the districts of West Madhya Pradesh and Chhattisgarh except in the above mentioned districts
- In Northeast India, as significant rain occurred in Dibang Valley, East Siang, Lower Dibang Valley, Tawang, Upper Siang, Upper Subansari, East Kameng, West Kameng and West Siang districts in Arunachal Pradesh during last week, farmers are advised to postpone irrigation to the standing crops in these districts. As there was no significant rain over the remaining districts of rest of the States of the region during last week and no significant rain is likely to occur during the period, farmers are advised to apply irrigation to the standing crops.
- In West India, as there was unseasonal rain accompanied by hail during last 3-4 days in some pockets of Nagpur, Wardha, Gadchiroli and Yavatmal districts of Vidarbha; Kolhapur, Satara and Sangli districts of South Madhya Maharashtra; Ratnagiri and Sindhudurg districts of South Konkan, fruit dropping occurred in orange and sweet lime in the above mentioned districts of Vidarbha, grapes in Sangli districts and strawberries in West Satara district of Madhya Maharashtra and mango in Konkan. Farmers are advised to clean the orchards by collecting the dropped fruits, leaves and branches as well as the infested fruits.
- In South India, as Guntur, Krishna, Prakasam, West Godavari and Nellore districts in Coastal Andhra Pradesh, Chittoor and Cuddapah in Rayalaseema, Adilabad, Karimnagar, Nalgonda, Nizamabad and Warangal in Telangana, Dakshin Kannada in Coastal Karnataka and most of the districts in Kerala and Tamil Nadu received significant rainfall last week, postpone irrigation to the standing crops in these districts.



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The bulletin is also displayed in the website (<http://www.imdagrimet.gov.in>) of the Division

Executive Summary

Northwest India

- As rain is expected at many places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, Rajasthan and West Uttar Pradesh, farmers are advised to postpone irrigation, intercultural operation and application of plant protection measures and fertilisers in standing crops.
- As there was significant rainfall in many districts of East Uttar Pradesh and also chances of rainfall at a few places during next three days, farmers are advised to postpone irrigation to the standing crops.
- As heavy rain / snow would occur at one or two places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand during next 48 hours, farmers are advised to arrange for adequate drainage to avoid water stagnation in the crop field.
- As Thundersquall and / or hailstorm would occur at one or two places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, Rajasthan and west Uttar Pradesh during next 48 hours and over east Uttar Pradesh on 23rd February, farmers are advised to use hail net for orchard crops to protect from damage. Provide mechanical support to standing crops wherever feasible to prevent from lodging due to strong winds.

East India

- As significant rainfall occurred in Araria, Arwal, Aurangabad, East Champaran, Gopalganj, Muzaffarpur, Patna, Rohtas, Saran, Sitamarhi, Vaishali and West Champaran districts of Bihar, Bokaro, Dhanbad, Giridih, Hazaribagh, Jamtara, Palamau and Ranchi districts of Jharkhand, Darjeeling district of West Bengal, and North, South and West Sikkim districts of Sikkim during last week, farmers are advised to postpone irrigation in these Districts. As mainly dry weather is likely to occur over the States of this region during the period, farmers in Odisha and West Bengal and remaining districts of Bihar and Jharkhand are advised to apply irrigation to the standing crops.
- Farmers in Jharkhand are advised to undertake sowing of summer mung utilizing realized rainfall and complete the transplanting of rice seedlings.
- In East and South Eastern Coastal Plain Zone of Odisha, tikka disease, leaf miner and bud necrosis has occurred in *rabi* groundnut; spray 500 g Blitox - 50 in 200 litres of water per acre for tikka, 2 ml Endosulphan or Ekalux or Hostathion per litre of water to control leaf minor and bud necrosis.
- Due to present weather condition in Laterite and Red Soil Zone of West Bengal, there is chance of attack of rust and blight diseases in wheat. Apply Mancozeb @ 2.5 to 3 g per litre of water to control the attack.
- Due to prevailing weather condition in North Eastern Plateau Zone of Odisha, there is chance of thrips in groundnut; farmers are advised to monitor the crop and spray Imidacloprid @ 50 ml in 200 litres of water or Dimethoate @ 400 ml in 200 litres of water.

Central India

- As significant rainfall occurred in all the districts of East Madhya Pradesh except Balaghat, Panna and Sagar districts and in Ashoknagar, Bhind, Burhanppur, Datia, Guna, Gwalior, Harda, Hosangabad, Morena, Sheopur and Shivpuri districts of West Madhya Pradesh and in Bilaspur, Korba, Koriya, Kawardha and Surguja districts in Chhattisgarh, postpone irrigation to the standing crops. Apply irrigation to the standing crops in Balaghat, Panna and Sagar districts in East Madhya Pradesh and in all the districts of West Madhya Pradesh and Chhattisgarh except in the above mentioned districts
- In view of likely thunder squall and / or hailstorm at one or two places over north Madhya Pradesh on 23rd February, farmers are advised to use hail net for orchard crops to protect from damage. Provide mechanical support to standing crops wherever feasible to prevent from lodging due to strong winds.
- Farmers in Bundelkhand Zone of Madhya Pradesh are advised to monitor mango for sucking pests and if observed spray Dichlorovos 76% @ 2ml / liter of water.
- Farmers in Chhattisgarh are advised to fix pheromone traps and light traps in rice fields to monitor and control stem borer.

Northeast India

- As significant rain occurred in Dibang Valley, East Siang, Lower Dibang Valley, Tawang, Upper Siang, Upper Subansari, East Kameng, West Kameng and West Siang districts in Arunachal Pradesh during last week, farmers are advised to postpone irrigation to the standing crops in these districts. As there was no significant rain over the remaining districts of rest of the States of the region during last week and no significant rain is likely to occur during the period, farmers are advised to apply irrigation to the standing crops.
- As reduced moisture is favourable for cracking in banana, farmers in Mild Tropical Hill Zone of Mizoram are advised for proper mulching and nutrient management especially application of boron to minimize cracking. In tomato, reduced soil moisture hinders availability of calcium; farmers are advised to ensure weekly irrigation for optimum fruit setting.
- As prevailing weather is favourable for development of blossom end rot in tomato in Mild Tropical Hill Zone of Nagaland, farmers are advised for mulching in tomato to conserve soil moisture.

- In Barak Valley Zone of Assam, there is infestation of aphids, jassids and beetles in French bean; farmers are advised to spray Malathion 50 EC @ 1.5 ml / litre of water to control the attack.
- Weather is favourable for incidence of blight, fruit borer and green caterpillar in tomato and chilli crops in Mild Tropical Hill Zone of Mizoram. Farmers are advised to spray Mencozeb @ 1 g per litre of water for blight and 5% neem seed kernel extract or NPV @ 250-500 LE with 100 ml teepol / ha for fruit borer and green caterpillar.

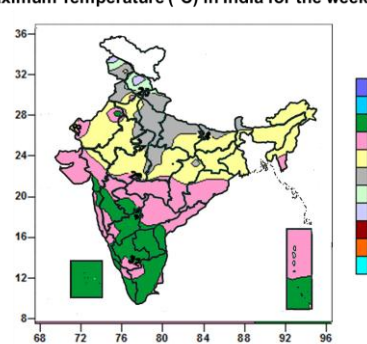
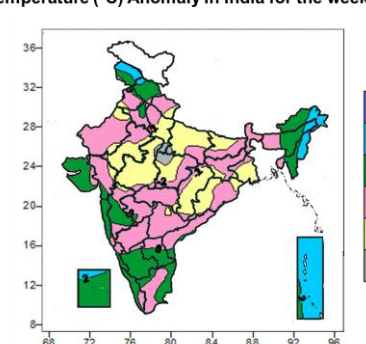
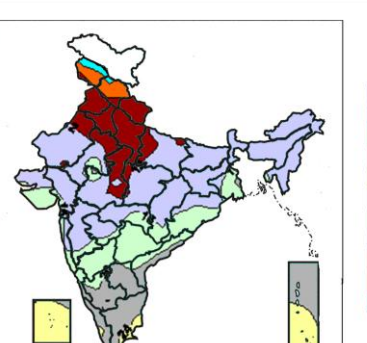
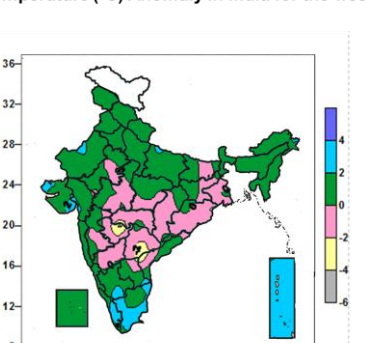
West India

- As there was unseasonal rain accompanied by hail during last 3-4 days in some pockets of Nagpur, Wardha, Gadchiroli and Yavatmal districts of Vidarbha; Kolhapur, Satara and Sangli districts of South Madhya Maharashtra; Ratnagiri and Sindhudurg districts of South Konkan, fruit dropping occurred in orange and sweet lime in the above mentioned districts of Vidarbha, grapes in Sangli districts and strawberries in West Satara district of Madhya Maharashtra and mango in Konkan. Farmers are advised to clean the orchards by collecting the dropped fruits, leaves and branches as well as the infested fruits.
- Due to unseasonal rains, crops like jowar, gram, onion and wheat are likely to be damaged; farmers are advised to harvest already matured jowar, gram and onion immediately.
- As dry weather prevailed during last few weeks and is also likely to prevail and wheat is in flowering / milk stage in Bhal and Coastal Zone, North Gujarat Zone and South Saurashtra Zone, cumin at grain formation stage in North West Zone of Gujarat, apply light irrigation in wheat and cumin. Also apply regular irrigation in garlic at bulb development stage South Saurashtra Zone.
- Temperatures in the range 10 to 31°C with relative humidity 60 to 90% at flowering stage of mango is congenial for the infestation of powdery mildew and mango hopper in mango; farmers in Middle Gujarat Zone and South Gujarat Heavy Rainfall Zone are advised to spray Sulphur @ 30 g /10 litre of water for control of powdery mildew and spray 10 g BT powder or neem powder @ 500 g /10 liters of water for mango hopper.

South India

- As Guntur, Krishna, Prakasam, West Godavari and Nellore districts in Coastal Andhra Pradesh, Chittoor and Cuddapah in Rayalaseema, Adilabad, Karimnagar, Nalgonda, Nizamabad and Warangal in Telangana, Dakshin Kannada in Coastal Karnataka and most of the districts in Kerala and Tamil Nadu received significant rainfall last week, postpone irrigation to the standing crops in these districts.
- In Problem areas Zone of Kerala, mulching with dried leaves is advised in coconut, nutmeg and banana crops for reducing evapotranspiration loss. In High Altitude Zone of Kerala, it is also advised for mulching in pepper and areca nut gardens to conserve moisture.
- Farmers in the North East Dry Zone Karnataka are advised for transplanting of paddy, after harvesting the *rabi* crops like bengal gram, safflower and jowar etc. in areas which received rainfall.
- There is possibility of occurrence of fruit rot and sucking pests on mango, due to unseasonal rain, in Southern Dry Zone of Karnataka. Farmers are advised to spray 1.5 ml Rogar or 1% Bordeaux mixture.
- Increase in day temperature are favourable for leaf folder incidence on rice in Scarce rainfall Zone of Andhra Pradesh. If observed, spray Chlorpyrifos @ 2.5 ml or Cartap hydrochloride 2.0 g or acephate @ 1.5 g per litre of water or apply Cartap hydrochloride 4G @ 8 Kg per acre for control of leaf folder.

Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 20.02.2013

<p>Actual Mean Maximum Temperature ($^{\circ}\text{C}$) in India for the week ending 20.02.2013</p> 	<p>Mean Maximum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 20.02.2013</p> 
<p>Actual Mean Maximum temperature ranged between 32 to 36$^{\circ}\text{C}$ over many parts of Madhya Maharashtra, Marathwada, Raylaseema, Karnataka, Kerala, Tamil Nadu, Lakshadweep Islands, some parts of West Rajasthan, Gujarat, Konkan, Coastal Andhra Pradesh, Telangana, Andaman & Nicobar Islands, 12 to 16$^{\circ}\text{C}$ over some parts of Jammu & Kashmir, Himachal Pradesh, 16 to 20$^{\circ}\text{C}$ over many parts of Himachal Pradesh, some parts of Jammu & Kashmir, Sikkim, 20 to 24 over many parts of Jammu & Kashmir, Uttarakhand, Uttar Pradesh, Punjab, Sikkim, some parts of Haryana, Delhi, East Rajasthan, Madhya Pradesh, Chhattisgarh, Bihar, Sub-Himalayan West Bengal, 24 to 32$^{\circ}\text{C}$ over remaining parts of the country.</p>	<p>Mean Maximum temperature anomaly ranged between 2 to 4$^{\circ}\text{C}$ over many parts of Nagaland, Manipur, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Arunachal Pradesh, Assam & Meghalaya, Lakshadweep Islands, 0 to 2$^{\circ}\text{C}$ over many parts of Himachal Pradesh, Arunachal Pradesh, Assam & Meghalaya, Mizoram, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra, Coastal & South Interior Karnataka, Raylaseema, Kerala, Lakshdweep Islands, some parts of Jammu & Kashmir, Haryana, Delhi, Manipur, Gujarat, Tamil Nadu, Andaman & Nicobar Islands, -6 to -4$^{\circ}\text{C}$ over some parts of Uttar Pradesh, Madhya Pradesh, -4 to 0$^{\circ}\text{C}$ over rest of the country.</p>
<p>Actual Mean Minimum Temperature ($^{\circ}\text{C}$) in India for the week ending 20.02.2013</p> 	<p>Mean Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 20.02.2013</p> 
<p>Actual Mean Minimum Temperature ranged between 24 to 28$^{\circ}\text{C}$ over many parts of Lakshadweep, Andaman & Nicobar Islands, 20 to 24$^{\circ}\text{C}$ over many parts of Coastal Andhra Pradesh, Rayalaseema, Coastal & South Interior Karnataka, Kerala, Tamil Nadu, Andaman & Nicobar Islands, some parts of Lakshadweep Islands, 4 to 8$^{\circ}\text{C}$ over many parts of Himachal Pradesh, some parts of Jammu & Kashmir, 0 to 4$^{\circ}\text{C}$ over some parts of Jammu & Kashmir, Himachal Pradesh, 8 to 20$^{\circ}\text{C}$ over remaining parts of the country.</p>	<p>Minimum Temperature anomaly ranged between 2 to 4$^{\circ}\text{C}$ over many parts of Tamil Nadu, Andaman & Nicobar Islands, some parts of East Uttar Pradesh, West Rajasthan, Gujarat, Saurashtra & Kutch, Rayalaseema, South Interior Karnataka, Kerala, -4 to -2$^{\circ}\text{C}$ over some parts of Marathwada, Vidarbha, Andhra Pradesh, , -2 to 2$^{\circ}\text{C}$ over rest of the country.</p>

Significant weather and realized rainfall during last week:

- Significant rainfall occurred in Delhi, Uttarakhand, Doda, Kathua, Kupwara, Ramban, Reasi districts of Jammu & Kashmir, Bilaspur, Chamba, Kinnaur, Kullu, Lahaul and Spiti, Shimla, Sirmaur, Solan districts of Himachal Pradesh, Barnala, Faridkot, Gurdaspur, Jalandhar districts of Punjab, Gurgaon, Mahendragarh, Mewat, Palwal, Yamunanagar districts of Haryana, most of the districts of Uttar Pradesh, Alwar, Dausa, Dholpur, Jhalawar, Sawai Madhopur, Tonk of East Rajasthan, Dibang Valley, East Siang, Lower Dibang Valley, Tawang, Upper Siang, Upper Subansari, West Kameng, West Siang districts of Arunachal Pradesh, many districts of Bihar, Ranchi, Dhanbad, Hazaribagh, Jamtara, Palamau, Bokaro districts of Jharkhand, Darjeeling, East Sikkim, North Sikkim, South Sikkim, West Sikkim districts of Sub-Himalayan West Bengal, Sindhudurg district of Konkan & Goa, Chandrapur district of Vidarbha, many districts of Madhya Pradesh, Bilaspur, Korba, Koriya, Kawardha, Surguja districts of Chattisgarh, Dakshin Kannada district of Coastal Karnataka, many districts of Kerala, Tamil Nadu, Guntur, Krishna, Nellore, Prakasam, West Godavari districts of Coastal Andhra Pradesh. Chittoor and Cuddapah in Rayalaseema, Adilabad, Karimnagar, Nalgonda, Nizamabad and Warangal in Telanagana. Mainly dry weather prevailed over rest parts of the country.
- During the last week, cold wave conditions prevailed over some parts of Vidarbha in Maharashtra on 17th, 18th and 19th February.

Distribution of rainfall of the country during week ending on 20.02.2013

State/Districts	Actual (mm)	% Dep.
Arunachal Pradesh		
Anjaw	**	**
Changlang	3.8	-91
Dibang Valley	78.0	114
East Kameng	19.6	-8
East Siang	23.4	28
Kurung Kumey	**	**
Lohit	14.2	-47
Lower Dibang Valley	26.0	-29
Lower Subansari	**	**
Papumpara	8.8	-63
Tawang	39.0	261
Tirap	3.6	-86
Upper Siang	38.4	-17
Upper Subansari	26.6	61
West Kameng	37.8	250
West Siang	39.5	158
Assam		
Baksa	8.9	-16
Barpeta	12.8	21
Bongaigaon	5.7	-60
Cachar	3.0	-86
Chirang	17.8	24
Darrang	12.0	62
Dhemaji	**	**
Dhubri	6.5	282
Dibrugarh	3.2	-78
East Garo Hills	16.0	290
East Khasi Hills	15.9	109
Goalpara	12.0	82
Golghat	10.4	5
Hailakandi	3.5	-81
Jaintia Hills	1.0	-94
Jorhat	9.2	-7
Kamrup(Rural)	9.0	29
Kamrup(Metro)	9.2	31
Karbi Anglong	2.3	-79
Karimganj	1.0	-90
Kokrajhar	13.4	0
Lakhimpur	8.9	-36
Morigaon	5.1	-25
N.C.Hills	12.4	7
Nowgong	10.8	112
Nalbari	11.1	48
Ribhoi	13.6	209
Sonitpur	12.0	74
Sibsagar	5.8	-41
South Garo Hills	3.0	11
Tinsukia	6.7	-63
Udalgiri	15.8	113
West Garo Hills	1.2	-56
West Khasi Hills	10.0	-22
Himachal Pradesh		
Bilaspur	22.6	-3
Chamba	34.4	53
Hamirpur	15.9	-21
Kangra	12.9	-43
Kinnaur	45.4	48
Kullu	36.9	36
Lahaul and Spiti	20.0	-43
Mandi	17.6	-23
Shimla	23.8	13
Sirmaur	30.9	136
Solan	21.7	-5
Una	13.0	-15
Punjab		
Amritsar	16.5	99
Barnala	30.7	829
Bhatinda	8.0	54
Faridkot	22.5	603
Fatehgarh Saheb	2.0	-73
Ferozpur	1.8	-62
Gurdaspur	23.2	80
Hoshiarpur	10.6	-12
Jalandhar	22.3	133
Kapurthala	12.2	74
Ludhiana	19.1	89
Mansa	18.7	240
Moga	0.0	-100
Muktesar	0.0	-100
Nawashahar	12.8	-12
Patiala	12.5	79
Ropar	11.7	-20
Sangrur	5.2	-16
Mohali	0.0	-100
TarnTaran	13.9	128
Haryana		
Ambala	13.7	132
Bhiwani	5.5	56
Chandigarh	10.8	-17
Faridabad	7.0	89
Fatehabad	9.1	184
Gurgaon	22.0	400
Hissar	5.1	13
Jhajar	1.0	-74
Jind	11.3	176
Katihah	5.1	-3
Karnal	13.2	107
Kurukshetra	9.3	57
Mahendragarh	26.5	579
Mewat	67.0	1814
Palwal	39.7	1628
Panchkkula	6.8	-37
Panipat	19.1	316
Rewari	3.0	0
Rohtak	4.3	-33
Sirsa	1.0	-71
Sonepat	5.4	13
Yamunanagar	21.3	134
Delhi	20.8	193
Jammu & Kashmir		
Anantnag	17.6	-40
Badgam	5.5	-70
Bandipore	**	**
Baramula	11.5	-70
Doda	39.6	-28
Ganderwal	18.0	-5
Jammu	10.1	-45
Kargil	0.0	-100
Kathua	26.5	64
**Kistwar	**	**
Kulgam	9.5	-67
Kupwara	26.1	-29
Ladakh(Leh)	0.0	-100
Poonch	0.0	-100
Pulwama	6.9	-52
Rajouri	7.5	-67
Ramban	36.4	-34
Reasi	28.1	-9
Samba	13.3	-28
Shopian	6.0	-59
Srinagar	6.6	-65
Udhampur	14.6	-53
East Madhya Pradesh		
Anuppur	63.0	855
Balaghat	12.3	356
Chhatarpur	39.4	996
Chindwara	19.0	555
Damoh	26.0	478
Dindori	40.0	716
Jabalpur	67.1	2950
Katni	40.0	830

Mandla	38.2	470
Narsingpur	43.2	2174
Panna	0.0	-100
Rewa	41.1	675
Sagar	10.8	284
Satna	41.4	746
Seoni	27.5	709
Shahdol	91.0	1238
Sidhi	49.4	1272
Singrauli	56.5	1245
Tikamgarh	24.0	728
Umaria	76.4	1132
West Madhya Pradesh		
Alirajpur	0.0	-100
Asoknagar	33.8	2009
Badwani	0.0	-100
Betul	16.6	1084
Bhind	36.3	1069
Bhopal	1.2	-14
Burhanpur	24.7	4022
Datia	39.4	1213
Dewas	17.2	1617
Dhar	0.0	-100
Guna	35.6	1878
Gwalior	45.9	1663
Harda	21.7	3508
Hosangabad	42.5	2137
Indore	1.0	400
Jhabua	0.0	-100
Khandwa	7.0	1650
Khargone	5.9	1371
Mandsaur	18.2	4444
Morena	24.0	991
Neemuch	16.8	4100
Raisen	0.0	-99
Rajgarh	15.7	1329
Ratlam	7.0	1650
Sehore	10.8	575
Shajapur	11.3	1306
Sheopur Kalani	36.5	5114
Shivpuri	53.5	2448
Ujjain	8.2	4000
Vidisha	10.8	471
Chattisgarh		
Bastar	14.3	430
Bijapur	14.0	900
Bilaspur	22.4	522
Dantewara	3.0	2900
Dhamtari	18.4	868
Durg	13.1	1538
Janjgir	13.0	829
Jashpurnagar	16.5	302
Kanker	0.0	-100
Korba	37.0	825
Koriya	52.7	2830
Kawardha	28.0	1067
Mahasamund	14.5	753
Narayanpur	4.0	90
Raigarh	0.0	-100
Raipur	8.5	508
Rajandgaon	0.0	-100
Surguja	51.7	1568
East Uttar Pradesh		
Allahabad	48.4	1514
Ambedkar Nagar	14.4	213
Azamgarh	58.2	2228
Bahraich	31.0	560
Ballia	28.0	1019
Balrampur	21.0	483
Banda	48.0	1043
Barabanki	22.3	337

Basti	19.0	375
Chandauli	53.0	1004
Deoria	5.7	42
Faizabad	13.1	198
Farrukhabad	23.1	725
Fatehpur	31.6	670
Gazipur	49.7	3450
Gonda	22.7	608
Gorakhpur	35.7	890
Hardoi	17.3	407
Jaunpur	39.6	915
Kannauj	52.0	1386
Kanpur City	34.0	554
Kanpur Dehat	35.0	797
Kaushambi	59.3	1644
Kheri	38.0	899
Kushi nagar	13.5	366
Lucknow	14.7	206
Maharajganj	5.8	57
Mau	22.0	633
Mirzapur	65.5	1624
Pratapgarh	76.3	2444
RaiBareilly	24.3	635
Sahuji Maharajnagar	74.0	1956
Sant Kabirnagar	22.0	358
Sant Ravidas Nagar	40.0	733
Shrawasti	8.0	70
Sidharthnagar	7.5	159
Sitapur	11.9	260
Sonbhadra	55.5	1440
Sultanpur	21.1	711
Unnao	38.8	646
Varanasi	62.0	916
West Uttar Pradesh		
Agra	23.5	683
Aligarh	33.3	692
Auraiya	12.5	67
Badaun	9.1	127
Baghpat	12.7	165
Bareilly	25.1	383
Bijnor	61.2	774
Bulandsahar	52.8	827
Etah	19.5	427
Etawah	20.5	327
Firozabad	27.2	656
GBNagar	42.0	1300
Ghaziabad	45.7	962
Hamirpur	39.0	899
Jalaun	31.1	437
Jhansi	47.5	980
Jotirba Phule Nagar	40.0	567
Kanshiramnagar	27.0	771
Lalitpur	40.3	837
Mahamaya Nagar	19.8	420
Mahoba	33.8	668
Mainpuri	23.9	785
Mathura	19.5	491
Meerut	42.6	966
Moradabad	40.2	528
Muzzaffarnagar	38.6	554
Pilibhit	32.0	680
Rampur	29.8	234
Saharanpur	56.0	627
Shahjahanpur	42.0	924
Uttarakhand		
Almora	74.4	417
Bageshwar	70.0	386
Chamoli	33.2	41
Champawat	84.0	509
Dehradun	41.7	154
Garhwal Pauri	57.5	568

Garhwal Tehri	74.3	370
Haridwar	83.8	755
Nainital	93.9	623
Pithorgarh	50.8	185
Rudraprayag	51.0	138
Udham Sing Nagar	72.2	1167
Uttarkashi	74.4	192
Bihar		
Araria	21.5	1333
Arwal	41.2	4020
Aurangabad	49.4	1272
Banka	**	**
Begusarai	25	733
Bhabua	**	**
Bhagalpur	14.2	344
Bhojpur	**	**
Buxar	**	**
Darbhanga	**	**
East Champaran	31.9	1001
Gaya	9.3	158
Gopalganj	39.8	1184
Jahanabad	12.6	641
Jamui	6.4	191
Kathihar	10.4	512
Khagadia	5.5	395
Kishanganj	**	**
Lakhisarai	5.2	100
Madhepura	7.0	111
Madhubani	**	**
Monghyar	**	**
Muzaffarpur	42.8	1375
Nalanda	13.5	286
Nawada	0.0	-100
Patna	36.4	884
Purnea	12.5	346
Rohtas	71.6	1491
Saharsha	**	**
Samstipur	7.6	181
Saran	33.8	814
Sheikpura	3.6	13
Sheohar	39	1158
Sitamarhi	27.2	777
Siwan	**	**
Supaul	9.4	276
Vaishali	27.4	756
West Champaran	28.4	952
Jharkhand		
Bokaro	26.7	761
Chatra	**	**
Deoghar	**	**
Dhanbad	23.6	505
Dumka	**	**
East Singbhum	9.9	219
Garhwa	**	**
Giridih	15.8	379
Godda	**	**
Gumla	**	**
Hazaribagh	30.2	788
Jamtara	25.5	751
Khunti	**	**
Koderna	**	**
Latehar	**	**
Lohardagga	**	**
Pakur	**	**
Palamau	20.8	462
Ramgarh	**	**
Ranchi	25.9	255
Sahebganj	**	**
Saikela	**	**
Simdega	**	**
West Singbhum	5.3	9

East Rajasthan		
Ajmer	4.0	267
Alwar	44.5	960
Banswara	11.9	5839
Baran	16.6	2271
Bharatpur	9.1	175
Bhilwara	14.6	669
Bundi	16.4	1073
Chittorgarh	1.0	67
Dausa	38.8	1394
Dholpur	28.0	748
Dungarpur	13.3	6554
Jaipur	16.7	423
Jhalawar	23.6	7750
Jhunjhunu	12.7	217
Karauli	8.4	212
Kota	14.2	1678
Pratapgarh	13.8	13700
Rajsamand	5.6	463
Sawai Madhopur	31.7	1763
Sikar	14.2	358
Sirohi	1.8	154
Tonk	20.8	766
Udaipur	4.2	320
Maharashtra		
Konkan & Goa		
Goa	12.7	200
Mumbai	0.0	-100
Raigad	0.0	-100
Ratnagiri	0.2	200
Sindhudurg	21.9	200
Thane	0.0	-100
Vidarbha		
Akola	5.9	1364
Amraoti	0.5	-58
Bhandara	6.8	113
Buldhana	2.0	567
Chandrapur	21.7	886
Gadchiroli	14.0	484
Gondia	8.8	193
Nagpur	4.5	106
Wardha	10.3	388
Washim	4.9	506
Yeotmal	7.0	438
West Bengal		
SHWB		
Cooch Behar	18.9	225
Darjeeling	26.4	98

East Sikkim	27.3	105
Jalpaiguri	13.9	128
Malda	19.8	942
North Dinajpur	11.0	200
North Sikkim	55.3	129
South Dinajpur	9.1	38
South Sikkim	25.2	89
West Sikkim	35.0	45
Karnataka		
Coastal Karnataka		
Dakshin Kannada	24.9	12339
Udupi	13.5	13360
Uttar Kannada	12.3	-
Kerala		
Alappuzha	54.1	982
Kannur	35.5	35400
Ernakulam	54.0	1700
Idukki	12.1	278
Kasaragod	83.2	83100
Kollam	50.7	585
Kottayam	18.8	169
Kozhikode	41.8	13833
Malappuram	7.7	1000
Palakkad	43.5	2459
Pathanamthitta	8.0	-27
Thiruvananthapuram	51.9	1231
Thrissur	42.9	2581
Wyanad	11.3	653
Tamil Nadu		
Ariyalur	7.3	113
Chennai	18.0	97
Coimbatore	57.8	1104
Cuddalore	20.8	372
Dharmapuri	22	586
Dindigul	28.4	666
Erode	33.1	794
Kanchipuram	24.3	417
Kanyakumari	68.6	988
Karikal	12.6	22
Karur	17.4	501
Krishnagiri	7.2	212
Madurai	41.4	841
Nagapattinam	23.5	285
Namakkal	9.1	138
Nilgiris	14.9	119
Perambalur	12.3	666
Puducherry	3.5	-63
Pudukottai	19.2	816

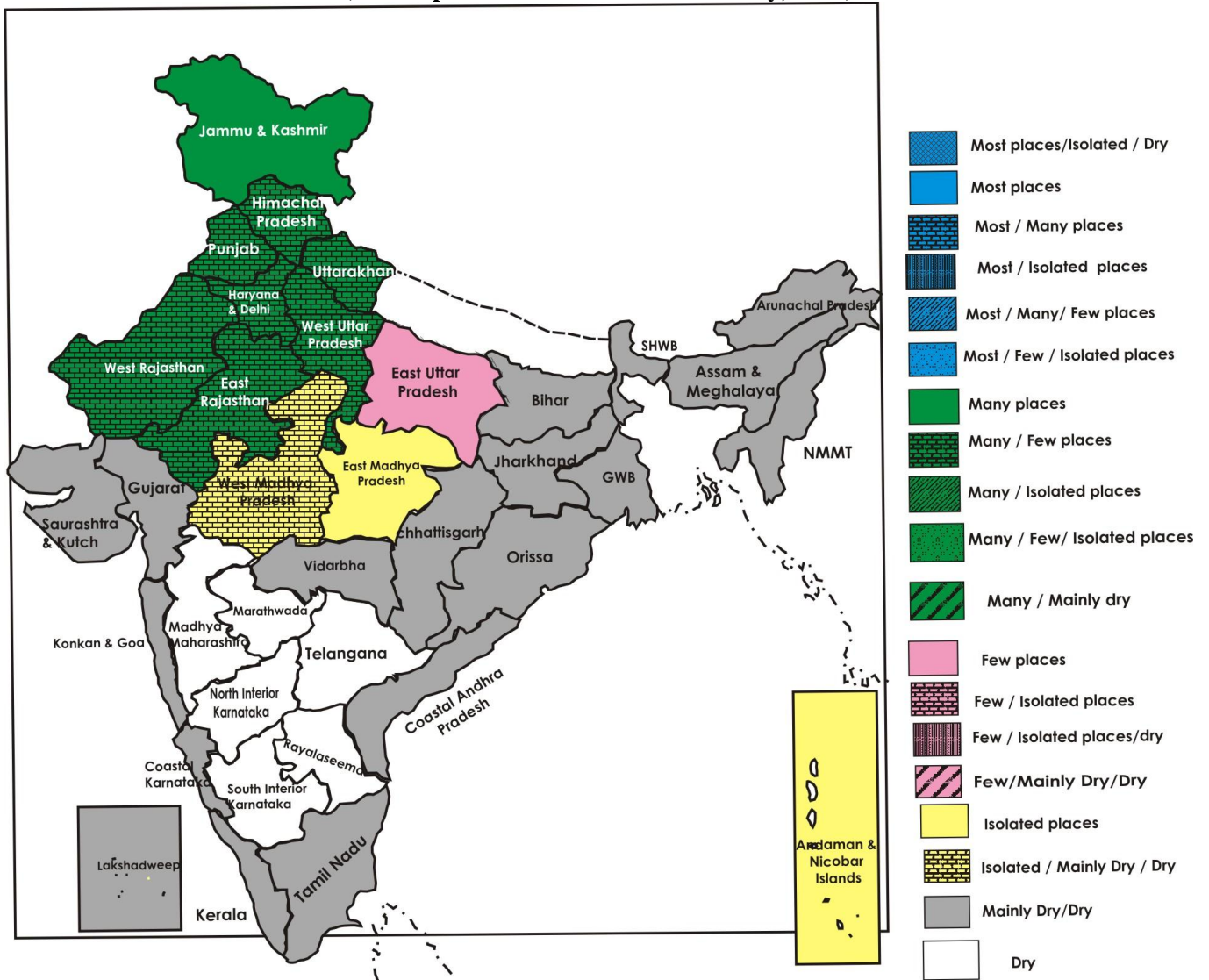
Ramanathapuram	50.0	919
Salem	13.0	349
Sivaganga	44.5	934
Thanjavur	14.7	267
Theni	39.4	796
Tirunelveli	88.9	899
Tirupur	32.7	1029
Tiruvallur	55.2	737
Tiruvannamalai	4.2	-7
Tiruvarur	24.8	452
Toothukudi	29.7	681
Trichy	5.7	159
Vellore	20.9	496
Villupuram	5.8	107
Virudhunagar	40.6	765
Andhra Pradesh		
Coastal Andhra Pradesh		
East Godavari	16.1	543
Guntur	80.6	3000
Krishna	76.7	2640
Nellore	51.8	763
Prakasam	46.8	2028
Sirkakulam	1.2	-82
Visakhapatnam	5.0	36
Vizianagram	1.8	-56
West Godavari	23.9	819
Telangana		
Adilabad	35.6	2442
Hyderabad	14.3	919
Karimnagar	43.7	3022
Khammam	19.4	646
Mehabubnagar	14.7	1126
Medak	16.0	1503
Nalgonda	47.8	3089
Nizamabad	25.2	2702
Rangareddy	15.3	923
Warangal	23.9	455
Rayalaseema		
Anantapur	7.2	1103
Chittoor	44.2	904
Cuddapah	26.5	2555
Kurnool	12.6	4106

Legends

(20% or more) excess rainfall	(-60 to -99 %) scanty rainfall
(-19 to +19%) normal rainfall	(-100%) no rainfall
(-20 to -59%) deficient rainfall	** Data not available

Weather Forecast

(Valid upto 0830 hours of 25th February, 2013)



Zonewise Agromet Advisories

NORTHWEST INDIA [JAMMU & KASHMIR, HIMACHAL PRADESH, UTTARAKHAND, PUNJAB, HARYANA, DELHI, UTTAR PRADESH & RAJASTHAN]

- **Realised Rainfall:** Significant rainfall occurred in most of the districts in Uttar Pradesh, Uttarakhand and Delhi, Bilaspur, Chamba, Kinnaur, Kullu, Lahaul and Spiti, Shimla, Sirmour and Solan districts of Himachal Pradesh, Barnala, Faridkot, Gurdaspur and Jalandhar districts of Punjab, Gurgaon, Mahendragarh, Mewat, Palwal and Yamunanagar districts of Haryana, Doda, Kathua, Kupwara, Ramban and Reasi districts of Jammu & Kashmir, Alwar, Dausa, Dholpur, Jhalawar, Sawai Madhopur and Tonk districts of East Rajasthan during last week.
- **Weather Forecast:** Rain / snow would occur at many places over Jammu & Kashmir. Rain / snow would occur at many places over Himachal Pradesh and Uttarakhand during next 48 hours and decrease thereafter. Rain / thundershowers would occur at many places over Punjab, Haryana & Delhi, Rajasthan and west Uttar Pradesh during next 48 hours and decrease thereafter. Rain / thundershowers would occur at a few places over east Uttar Pradesh.
- **Weather Warning:** Heavy rain/snow would occur at one or two places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand during next 48 hours. Thundersquall and /or hailstorm would occur at one or two places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, Rajasthan and west Uttar Pradesh during next 48 hours and over east Uttar Pradesh on 23rd February.
- **Advisory:**
 - As rain is expected at many places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, Rajasthan and West Uttar Pradesh, farmers are advised to postpone irrigation, intercultural operation and application of plant protection measures and fertilisers in standing crops.
 - As there was significant rainfall in many districts of East Uttar Pradesh and also chances of rainfall at a few places during next three days, farmers are advised to postpone irrigation to the standing crops.
 - As heavy rain / snow would occur at one or two places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand during next 48 hours, farmers are advised to arrange for adequate drainage to avoid water stagnation in the crop field.
 - As Thundersquall and / or hailstorm would occur at one or two places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, Rajasthan and west Uttar Pradesh during next 48 hours and over east Uttar Pradesh on 23rd February, farmers are advised to use hail net for orchard crops to protect from damage. Provide mechanical support to standing crops wherever feasible to prevent from lodging due to strong winds.
 - In Delhi and Haryana, prevailing weather would be favourable for yellow rust disease in wheat crop. If disease appears, spray the crop with Tilt @ 200 ml in 200 liter water per acre after current spells of rain.
 - In Southern Humid Plain of Rajasthan, prevailing weather conditions are favourable for increase of aphids and powdery mildew in mango. Farmers are advised to apply foliar spray at flowering with Kerathane @1 ml / litre of water after current spells of rain.
 - Stages of major crops are mentioned in Annexure II.
 - Suitable varieties of crops are mentioned in Annexure III.
- **Animal Husbandry**
 - In view of likely rainfall in Uttarakhand, farmers are advised to keep all animals inside the shed. Feed them with balance feed including a mixture of green & dry fodder to cope up with cold weather.
 - In Uttar Pradesh, balanced diet should be given for milch animal to cope up with cold weather. Wheat straw should be added with 60% green fodder and give fresh water for drinking.
 - In Arid Western Plain Zone of Rajasthan, infection like FMD and HS in cow, TPR and Pox in sheep and goats and CRD and Ranikhet in poultry birds may occur due to present weather conditions; on appearance of the symptom, it is advised to adopt proper vaccination of livestock and poultry.
 - In Haryana, farmers are advised to use heaters as the temperature inside the shed should not be below 60°F. Keep the chicks warm by giving them artificial heat according to age. For animals, farmers are advised to feed balanced fodder and increase 4 to 5% energy sources in the ration of animals like cereals, grains etc. Keep animals in shed during thunderstorm.

EAST INDIA [JHARKHAND, BIHAR, ORISSA, WEST BENGAL & SIKKIM]

- **Realised Rainfall:** Significant rainfall occurred in Araria, Arwal, Aurangabad, East Champaran, Gopalganj, Muzaffarpur, Patna, Rohtas, Saran, Sitamarhi, Vaishali and West Champaran districts of Bihar, Bokaro, Dhanbad, Giridih, Hazaribagh, Jamtara, Palamau and Ranchi districts of Jharkhand, Darjeeling district of West Bengal, and North, South and West Sikkim districts of Sikkim.
- **Weather Forecast:** Mainly dry weather would prevail over the region. Rise in minimum temperature by 2-3°C over the region.

- **Advisories:**

- As significant rainfall occurred in Araria, Arwal, Aurangabad, East Champaran, Gopalganj, Muzaffarpur, Patna, Rohtas, Saran, Sitamarhi, Vaishali and West Champaran districts of Bihar, Bokaro, Dhanbad, Giridih, Hazaribagh, Jamtara, Palamau and Ranchi districts of Jharkhand, Darjeeling district of West Bengal, and North, South and West Sikkim districts of Sikkim during last week, farmers are advised to postpone irrigation in these Districts. As mainly dry weather is likely to occur over the States of this region during the period, farmers in Odisha and West Bengal and remaining districts of Bihar and Jharkhand are advised to apply irrigation to the standing crops.
- As dry weather is likely to prevail, farmers in Jharkhand are advised to continue harvesting of rapeseed and mustard and store the harvested products at safe place.
- Farmers in Jharkhand are advised to undertake sowing of summer mung utilizing realized rainfall and complete the transplanting of rice seedlings.
- Due to prevailing weather, timely sown wheat crop at heading stage may suffer from loose smut disease; spray the fungicide Raxyl @ 1.5 ml per litre of water to control this disease.
- Due to present weather condition in Laterite and Red Soil Zone of West Bengal, there is chance of attack of rust and blight diseases in wheat. Apply Mancozeb @ 2.5 to 3 g per litre to control the attack.
- In the prevailing weather condition in New Alluvial Zone of West Bengal, there is chance of powdery mildew in sunflower and mango hopper in mango. To control powdery mildew disease, apply sulphex or 2 g Krilaxyl per litre of water and to control the attack of mango hopper spray 1.5 ml Monocrotophos per litre of water.
- Due to present weather conditions in Terai Zone of West Bengal, there may be chance of late blight attack in potato, spray Mancozeb (2 g / litre of water) and Blitox (4 g / litre of water) alternately at 10-12 days interval by completely wetting the leaves.
- Due to prevailing weather condition in North Eastern Plateau Zone of Odisha, there is chance of thrips in groundnut; farmers are advised to monitor the crop and spray Imidacloprid @ 50 ml in 200 litres of water or Dimethoate @ 400 ml in 200 litres of water. Also, there is chance of yellow stem borer and blast attack in rice; farmers are advised to fix pheromone traps, light traps for the initial control of yellow stem borer. If the infestation exceeds, above ETL, apply recommended chemicals to control.

- **Pisciculture**

- Rise in temperature is favourable for growth of fishes. Farmers in Western Plateau Zone and South Eastern Plateau Zone of Jharkhand are advised to add cow dung and lime in the pond as natural foods for them and alternative feeds may also be used like rice bran and mustard cake (each of 5 kg per day per acre area of pond).
- Other crop advisories are mentioned in Annexure I.
- Stages of major crops are mentioned in Annexure II.
- List of Varieties are mentioned in Annexure III.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** Significant rainfall occurred in all the districts of East Madhya Pradesh except Balaghat, Panna and Sagar districts and in Ashoknagar, Bhind, Burhanppur, Datia, Guna, Gwalior, Harda, Hosangabad, Morena, Sheopur and Shivpuri districts of West Madhya Pradesh and in Bilaspur, Korba, Koriya, Kawardha and Surguja districts in Chhattisgarh.
- **Weather forecast:** Rain/thundershowers would occur at one or two places over Madhya Pradesh on 22nd and 23rd February and over East Madhya Pradesh and Chhattisgarh on 24th February. Rise in minimum temperatures by 2-3°C over the region.
- **Warning:** Thunder squall and/ or hailstorm at one or two places over north Madhya Pradesh on 23rd February.
- **Advisories:**
 - As significant rainfall occurred in all the districts of East Madhya Pradesh except Balaghat, Panna and Sagar districts and in Ashoknagar, Bhind, Burhanppur, Datia, Guna, Gwalior, Harda, Hosangabad, Morena, Sheopur and Shivpuri districts of West Madhya Pradesh and in Bilaspur, Korba, Koriya, Kawardha and Surguja districts in Chhattisgarh, postpone irrigation to the standing crops. Apply irrigation to the standing crops in Balaghat, Panna and Sagar districts in East Madhya Pradesh and in all the districts of West Madhya Pradesh and Chhattisgarh except in the above mentioned districts
 - In view of likely thunder squall and / or hailstorm at one or two places over north Madhya Pradesh on 23rd February, farmers are advised to use hail net for orchard crops to protect from damage. Provide mechanical support to standing crops wherever feasible to prevent from lodging due to strong winds.
 - Due to favourable weather conditions in Jhabua Hill Zone of Madhya Pradesh, there are chances of incidences of shoot and fruit borer in brinjal and fruit fly in tomato. Farmers are advised to monitor the crops for the pests and spray Trizophos @ 2.0 ml/l of water if observed.

- Farmers in Bundelkhand Zone of Madhya Pradesh are advised to monitor mango for sucking pests and if observed spray Dichlorovos 76% @ 2ml / liter of water.
- Farmers in Chhattisgarh are advised to fix pheromone traps and light traps in rice fields to monitor and control stem borer.
- Other advisories are mentioned in Annexure – I.
- Stages of major crops are mentioned in Annexure II.
- **Animal Husbandary**
 - Farmers in Satpura Plateau Zone of Madhya Pradesh are advised to keep cattle in dry and clean places due to humid weather conditions. Create smoke in night to save them from mosquitoes and bees.
 - There is a possibility of cloudy sky condition over Bundelkhand Zone of Madhya Pradesh in next 5 days hence farmers are advised to provide 5-6 hours light in poultry houses during night.

NORTHEAST INDIA [ARUNACHAL PRADESH, NMM&T, ASSAM, MEGHALAYA]

- **Realised Rainfall:** There was no significant rain over the States of the region except Dibang Valley, East Siang, Lower Dibang Valley, Tawang, Upper Siang, Upper Subansari, East Kameng, West Kameng, West Siang districts in Arunachal Pradesh during last week.
- **Weather Forecast:** Mainly dry weather would prevail over the States of the region.
- **Advisories:**
 - As significant rain occurred in Dibang Valley, East Siang, Lower Dibang Valley, Tawang, Upper Siang, Upper Subansari, East Kameng, West Kameng and West Siang districts in Arunachal Pradesh during last week, farmers are advised to postpone irrigation to the standing crops in these districts. As there was no significant rain over the remaining districts of rest of the States of the region during last week and no significant rain is likely to occur during the period, farmers are advised to apply irrigation to the standing crops.
 - As reduced moisture is favourable for cracking in banana, farmers in Mild Tropical Hill Zone of Mizoram are advised for proper mulching and nutrient management especially application of boron to minimize cracking. In tomato, reduced soil moisture hinders availability of calcium; farmers are advised to ensure weekly irrigation for optimum fruit setting.
 - As prevailing weather is favourable for development of blossom end rot in tomato in Mild Tropical Hill Zone of Nagaland, farmers are advised for mulching in tomato to conserve soil moisture.
 - As mainly dry weather is prevailing, farmers in Sub Tropical Plain Zone of Manipur are advised to apply irrigation in rapeseed, field pea, maize and onion.
 - Taking the advantage of likely dry weather in Upper Brahmaputra Valley Zone of Assam, farmers are advised to continue harvesting of potato.
 - Due to favourable weather conditions, there is chance of attack of late blight in potato in North Bank Plain Zone of Assam. To control the attack, farmers are advised to spray Mancozeb @ 2.5 g / litre of water.
 - Weather is favourable for incidence of blight, fruit borer and green caterpillar in tomato and chilli crops in Mild Tropical Hill Zone of Mizoram. Farmers are advised to spray Mencozeb @ 1 g per litre of water for blight and 5% neem seed kenel extract or NPV @ 250-500 LE with 100 ml teepol / ha for fruit borer and green caterpillar.
 - In Temperate Sub Alpine Zone of Meghalaya, due to congenial weather, there is chance of attack of aphids in toria, pea and lentil; farmers are advised to apply Dimethoate @ 2 ml per litre of water or Malathion 50 EC @ 1.5 ml per litre of water, if incidence is noticed.
 - Other advisories are mentioned in Annexure - I
 - Stages of major crops are mentioned in Annexure II.
 - Suitable varieties of crops are mentioned in Annexure III.
- **Animal Husbandry**
 - In Mild Tropical Hill Zone of Nagaland and Sub-Tropical Hill Zone of Arunachal Pradesh, farmers are advised to provide good shelter by additional bulbs in poultry, heating system to cattle shed or tie gunny bag on the back of animals to protect from cool temperature.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** Rain occurred in many districts of Vidarbha and a few districts of Madhya Maharashtra. Rain also occurred at isolated places over South Konkan and Marathwada on 16th February. Weather was mainly dry over North Konkan during last week. Mainly dry weather prevailed over Gujarat State.
- **Rainfall Forecast:** Mainly dry weather would prevail over the region.
- **Advisories:**
 - As there was unseasonal rain accompanied by hail during last 3-4 days in some pockets of Nagpur, Wardha, Gadchiroli and Yavatmal districts of Vidarbha; Kolhapur, Satara and Sangli districts of South Madhya Maharashtra; Ratnagiri and Sindhudurg districts of South Konkan, fruit dropping occurred in orange and sweet

lime in the above mentioned districts of Vidarbha, grapes in Sangli districts and strawberries in West Satara district of Madhya Maharashtra and mango in Konkan. Farmers are advised to clean the orchards by collecting the dropped fruits, leaves and branches as well as the infested fruits.

- Due to unseasonal rains, crops like jowar, gram, onion and wheat are likely to be damaged; farmers are advised to harvest already matured jowar, gram and onion immediately.
- As mango is at pea stage, considering the rise in maximum temperature and likely mainly dry weather in Konkan, apply 150 to 200 litres of water per mango tree @ 15 days interval.
- As temperatures are increasing in Middle Gujarat Zone and mainly dry weather is likely to prevail, apply irrigation in summer groundnut and late sown wheat crop.
- As dry weather prevailed during last few weeks and is also likely to prevail and wheat is in flowering / milk stage in Bhal and Coastal Zone, North Gujarat Zone and South Saurashtra Zone, cumin at grain formation stage in North West Zone of Gujarat, apply light irrigation in wheat and cumin. Also apply regular irrigation in garlic at bulb development stage South Saurashtra Zone.
- Taking the advantage of clear weather, carry out hand weeding and inter-cultural operations in wheat and castor in North West Zone of Gujarat. Spray 2% Potassium Nitrate in mango for effective control of fruit dropping and for good flower setting in South Gujarat Zone.
- As sky would be clear in coming days and expected maximum temperatures are in the range of 30-32⁰C, carry out harvesting of mustard, gram and allow for sun drying in North Gujarat Zone.
- Weather is favourable for sowing of summer groundnut in North Gujarat Zone and in South Saurashtra Zone. Due to increase in temperature in South Gujarat Heavy Rainfall Zone, carry out sowing of early maturing varieties of groundnut.
- Due to prevailing cloudy weather, there may be incidence of thrips on mustard and pea size mango fruit in South Konkan. For control, spray Spinosad 45% @ 2.5 ml in 10 litres of water.
- Temperatures in the range 10 to 31⁰C with relative humidity 60 to 90% at flowering stage of mango is congenial for the infestation of powdery mildew and mango hopper in mango; farmers in Middle Gujarat Zone and South Gujarat Heavy Rainfall Zone are advised to spray Sulphur @ 30 g /10 litre of water for control of powdery mildew and spray 10 g BT powder or neem powder @ 500 g /10 liters of water for mango hopper. Spray 3 ml Imidachloprid 17.8 % SL @ 15 g / litre in 10 litre of water and spray Dinocap 48 EC @ 10 ml or Hexaconazol 5 EC @ 10 ml or Carbendazim 50% WP @ 5 g per 10 litres of water in North Saurashtra Zone.
- Weather conditions are favourable for outbreak of aphids in mustard in South Gujarat Heavy Rainfall Zone; dust the Methyle Parathion 2% or Quinalphos 1.5% powder @ 25 kg / ha during morning hours, when wind velocity is less. Due to increase in temperature, outbreak of powdery mildew is noticed in mustard; spray water soluble Sulphur (50%) @ 40 kg / ha or water soluble Sulphur (80%) @ 25 kg / ha or Dinocap (48%) @ 5 ml in 10 liters of water after evaporation of dew.
- Weather conditions are favourable for incidence of blight and powdery mildew in cumin in North Saurashtra Zone of Gujarat; spray 25 g Mancozeb and 10 ml Hexaconazole 5 EC in 10 litres of water to prevent it.
- Other advisories are mentioned in Annexure I.
- Stages of the crops are mentioned in Annexure II.
- Varieties of the crops are mentioned in Annexure III.

SOUTH INDIA [TN, AP, KERALA, KARNATAKA, LAKSHADWEEP, ANDAMAN & NICOBAR ISLANDS]

- **Realised Rainfall:** Guntur, Krishna, Prakasam, West Godavari and Nellore districts in Coastal Andhra Pradesh, Chittoor and Cuddapah in Rayalaseema, Adilabad, Karimnagar, Nalgonda, Nizamabad and Warangal in Telangana, Dakshin Kannada in Coastal Karnataka and most of the districts in Kerala and Tamil Nadu received significant rainfall during last week.
- **Rainfall Forecast:** Dry or mainly dry weather would prevail over the region.
- **Advisories:**
 - As Guntur, Krishna, Prakasam, West Godavari and Nellore districts in Coastal Andhra Pradesh, Chittoor and Cuddapah in Rayalaseema, Adilabad, Karimnagar, Nalgonda, Nizamabad and Warangal in Telangana, Dakshin Kannada in Coastal Karnataka and most of the districts in Kerala and Tamil Nadu received significant rainfall last week, postpone irrigation to the standing crops in these districts.
 - In Northern Zone of Kerala, farmers are advised to drain out water from the paddy fields completely for early and uniform hardening of the grains. Mulch the coconut and pepper basins to prevent evaporation loss of water. The season is ideal for cultivating vegetables as intercrops in coconut gardens.
 - In Problem areas Zone of Kerala, mulching with dried leaves is advised in coconut, nutmeg and banana crops for reducing evapotranspiration loss. In High Altitude Zone of Kerala, it is also advised for mulching in pepper and areca nut gardens to conserve moisture.

- Due to receipt of heavy rainfall in Western Zone of Tamil Nadu, farmers are advised to drain out the rain water from the maize field.
 - Farmers in the North East Dry Zone Karnataka are advised for transplanting of paddy, after harvesting the *rabi* crops like bengal gram, safflower and jowar etc. in areas which received rainfall.
 - In Eastern Dry Zone of Karnataka, low temperature in morning hours is congenial for powdery mildew in mango and grapes and also leaf hopper in mango. Farmers are advised to undertake plant protection measures.
 - There is possibility of occurrence of fruit rot and sucking pests on mango, due to unseasonal rain, in Southern Dry Zone of Karnataka. Farmers are advised to spray 1.5 ml Rogar or 1% Bordeaux mixture.
 - Due to low temperature, hoppers were noticed in mango crop in North East Transition Zone of Karnataka. Spraying of 4 g Carbaryl 50 WP or 2 ml Malathion 50 EC or 1.5 ml Monocrotophos 36 SL or 0.5 ml Phosphamidon 40 EC per litre of water is advised.
 - Weather is conducive for the incidence of fruit rot in chilli in the South Zone of Tamil Nadu. Farmers are advised to collect & destroy the infected fruits and spray mancozeb 1 kg / ha.
 - In the Central Zone of Kerala, attack of rhinoceros beetle in coconut is found, farmers are advised to apply 250 g neem cake mixed with equal volume of sand in the innermost 2-3 leaf axils and dissolve 1 kg caster cake in 5 litre of water.
 - Incidence of blast, leaf folder and stem borer is observed in rice and smut on sugarcane in the North Coastal Zone of Andhra Pradesh. Due to congenial warm and humid weather, conditions are favourable for attack of early shoot borer in sugarcane; farmers are advised to take appropriate plant protection measures.
 - Increase in day temperature are favourable for leaf folder incidence on rice in Scarce rainfall Zone of Andhra Pradesh. If observed, spray chlorpyrifos @ 2.5 ml or cartap hydrochloride 2 g or acephate @ 1.5 g per litre of water or apply Cartap hydrochloride 4G @ 8 Kg per one acre for control of leaf folder.
 - Warm and humid weather ($T > 26^{\circ} \text{C}$ and $\text{RH} > 60\%$) is congenial for incidence of stem borer in rice in high altitude zone of Andhra Pradesh. Farmers are advised to undertake appropriate plant protection measures, if observed.
 - In Southern Telangana Zone of Andhra Pradesh, weather is congenial for incidence of blast and sheath blight in rice and stem borer in maize. Farmers are advised to undertake plant protection measures.
 - Weather is congenial for incidence of powdery mildew in mango in Southern zone of Andhra Pradesh. Farmers are advised to spray Acephate @ 1.5 ml + Saaf @ 2 g per litre of water + 1 ml Planofix per 5 litre of water.
 - Other advisories are mentioned in Annexure – I.
 - Stages of major crops are mentioned in Annexure II.
 - List of Varieties are mentioned in Annexure III.
- **Animal Husbandry**
 - Farmers in North Western Zone of Tamil Nadu are advised to undertake measures in poultry houses in view of forthcoming summer.
 - Farmers in the North East Dry Zone of Karnataka are advised to vaccinate all the animals as weather conditions are favourable for foot and mouth disease in animals.
 - Farmers in the Central Dry Zone of Karnataka are advised to provide 10% extra dry matter (DM) over and above the total requirement to cattles to fulfill the extra energy requirement in winter.

Annexure I Other Advisories

EAST INDIA [JHARKHAND, BIHAR, ORISSA, WEST BENGAL &SIKKIM]

- Farmers in North West Alluvial Plain Zone of Bihar are advised to prepare the field for sowing of summer mung and urd crops and undertake intercultural operation in onion crop.
- Farmers in South Alluvial Zone of Bihar are advised to undertake sowing of summer vegetables.
- Farmers of Mid Central Table Land Zone of Odisha are advised for sowing of summer groundnut.
- Farmers of North Eastern Coastal Plain Zone of Odisha are advised to undertake sowing of sunflower.
- Farmers of East and South Eastern Coastal Plain Zone of Odisha are advised to complete sowing of sesame and papaya. Harvesting of mustard sown during October may be done and dry the plants under sun for easy threshing and safe storage.
- Farmers of North Central Plateau Zone of Odisha are advised to undertake sowing of summer vegetables specially cucurbitaceous vegetables like sponge gourd, bottle gourd, pumpkin, water melon and musk melon.
- In East and South Eastern Coastal Plain Zone of Odisha, tikka disease has occurred in *rabi* groundnut, spray 500 g Blitox - 50 in 200 litre of water per acre for tikka. Infestation of leaf minor and bud necrosis has occurred. Spray 2 ml Endosulphan or Ekalux or Hostathion per litre of water.
- Alternaria blight infestation has been found in tomato in East and South Eastern Coastal Plain Zone of Odisha; farmers are advised to spray 3 g Dithane-M-45 per litre of water.
- Farmers in Western Plateau Zone and South Eastern Plateau Zone of Jharkhand are advised to start sowing of vegetables like cauliflower, cabbage, chilli along with cucurbitaceous crops after harvesting of potato.
- Farmers in New Alluvial Zone and Laterite and Red soil Zone of West Bengal are advised to prepare land and undertake sowing of sesame.
- Farmers are advised to undertake sowing of groundnut in Laterite and Red soil Zone and sowing of moong and sesame and harvesting of potato in Coastal Saline Zone of West Bengal.
- Farmers in *Terai* Zone of West Bengal are advised to undertake transplanting of *boro* rice.

CENTRAL INDIA [M.P., CHHATTISGARH]

- Farmers in Satpura Plateau Zone of Madhya Pradesh are advised to undertake sowing of summer maize, intercropping of flower and vegetable crops with maize and planting of sugarcane.
- Farmers in Jhabua Hill Zone of Madhya Pradesh are advised to stop irrigation in potato and start digging (harvesting) of potato crop. Prepare nursery for summer vegetables like tomato, brinjal & chilli.
- The average temperature is now suitable for proper germination of cucurbits like pumpkin, bitter gourd, bottle gourd, okra, water melon musk melon etc. in Chhattisgarh Plain Zone. Farmers are advised to undertake field preparation and sowing of cucurbits.

NORTHEAST INDIA [ARUNACHAL PRADESH, NMM&T, ASSAM, MEGHALAYA]

- In Hill Zone, Barak Valley Zone, Central Brahmaputra Valley Zone and Lower Brahmaputra Valley Zone of Assam, farmers are advised to continue nursery raising of early *ahu* rice.
- In Upper Brahmaputra Valley Zone and Barak Valley Zone of Assam, farmers are advised to continue land preparation / sowing of summer pulses.
- In Lower Brahmaputra Valley Zone of Assam, farmers are advised to continue land preparation and sowing of summer crops like pumpkin, ridge gourd, sponge gourd etc.
- Farmers in North Bank Plain Zone of Assam are advised to continue land preparation for summer vegetables like ridge gourd, cucumber, bitter gourd, okra etc.
- Farmers in Central Brahmaputra Valley Zone of Assam are advised to undertake land preparation and sowing of summer pulses, *Capsularis* jute and summer vegetables.
- In Central Brahmaputra Valley Zone of Assam, incidence of wilt disease and aphids has been observed in lentil and lathyrus; farmers are advised to drench the soil with Bavistin @ 1 ml / litre of water to protect the crop from wilt and apply Malathion 50 EC @ 2 ml / litre of water.
- In Barak Valley Zone of Assam, there is infestation of aphids, jassids and beetles in French bean; farmers are advised to spray Malathion 50 EC @ 1.5 ml / litre of water to control the attack.
- Farmers in Sub-Tropical Hill Zone of Arunachal Pradesh are advised to undertake land preparation for *jhum* rice and sowing of okra and French bean.
- Farmers in Mild Tropical Hill Zone of Mizoram are advised to undertake land preparation and sowing of okra and cucurbits.
- In Mild Tropical Plain Zone of Tripura, farmers are advised to continue sowing of summer green gram and black gram and transplanting of summer brinjal and tomato.

- Farmers in Sub Tropical Plain Zone of Manipur are advised for transplanting of tomato, chilli and sowing of cucurbits, okra, French bean etc. Also continue land preparation for nursery raising of *pre-kharif* rice and sowing of cauliflower and cabbage.
- Farmers in Mild Tropical Hill Zone of Nagaland are advised to continue nursery raising of cucurbits *viz*, sponge gourd, bitter gourd and pumpkin. Continue land preparation for sowing of okra and transplanting of chilli and brinjal.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- Carry out harvesting of cumin and isabgol in early morning in Middle Gujarat Zone. Harvest the matured fruits of ber and guava in South Saurashtra Zone of Gujarat. Complete sowing of summer moong upto 15th March in Porbandar district.
- In South Gujarat Heavy Rainfall Zone, harvest matured pigeon pea in the morning. Carry out land preparation for sowing of summer crops with assured irrigation in North Gujarat Zone.
- Farmers in North Saurashtra Zone of Gujarat are advised to undertake sowing of summer groundnut, black gram, green gram and summer vegetables *viz*, lady's finger, cluster bean, bottle gourd, sponge gourd, ridge gourd, bitter gourd, water melon and transplanting of tomato and brinjal.
- Carry out picking of capsules of castor during early morning hours in Bhal and Coastal Zone, North West Zone of Gujarat and Middle Gujarat Zone. Carry out sowing of okra, cluster bean and cowpea and transplanting of brinjal in Bhal and Coastal Zone, North Gujarat Zone and North West Zone of Gujarat.

SOUTH INDIA [TN, AP, KERALA, KARNATAKA, LAKSHADWEEP, ANDAMAN & NICOBAR ISLANDS]

- In High Altitude Zone of Kerala, farmers are also advised to plough the paddy field after the harvest for taking next crop and allow the stubbles to decay and select short duration varieties for the summer crop.
- Farmers are advised for sowing of groundnut, cowpea and green gram, planting of sugarcane in North Dry Zone of Karnataka.
- Farmers in the Eastern Dry Zone Karnataka are advised to harvest Bengal gram and irrigate ragi crop at ear head emergence stage.
- In the Cauvery Delta Zone of Tamil Nadu, undertake harvesting of the matured *samba* and *thaladi* paddy.
- Farmers are advised to sow potato and carrot in High Altitude and Hilly Zone of Tamil Nadu and undertake land preparation for sowing of cabbage and beans.
- Farmers in the North Telangana zone of Andhra Pradesh are advised to undertake planting of sugarcane by soaking three budded setts in 300 litres of solution containing 150 g Carbendazim + 600 ml Malathion for 15 minutes to control scale insects and diseases before planting.

Annexure II Major Crops

NORTHWEST INDIA [JAMMU & KASHMIR, HIMACHAL PRADESH, UTTARAKHAND, PUNJAB, HARYANA, DELHI, UTTAR PRADESH & RAJASTHAN]

- Wheat (jointing), pea (flowering / pod formation / maturity), radish (vegetative), pome and stone fruits (planting), cabbage, cauliflower (head formation), tomato, brinjal (sowing) in Himachal Pradesh.
- Cauliflower, cabbage, broccoli, tomato (vegetative/ flowering / fruiting), carrot, pea (vegetative / flowering / fruiting), radish and turnip (vegetative/ flowering/ fruiting), mustard (pod filling), onion (vegetative), coriander, fenugreek, spinach (vegetative), wheat (late jointing), lady's finger (sowing), chilli, tomato, brinjal and cucurbits (nursery preparation / transplanting) in Delhi.
- *Rabi* cereal (wheat), pulses (pea and lentil), brown sarson, fodder oat (in dormant stage in Valley Temperate zone (Srinagar)), sunflower (early vegetative / vegetative), garlic, cucurbits, okra (seedling / early vegetative), potato (planting), radish, spinach (sowing), carrot, turnip (sowing), onion, cole crops (nursery sowing / transplanting), mustard (late sown – flowering, normal / early sown - seed formation), wheat (late sown - tillering / jointing, normal / early sown - active tillering / ear head emergence), barley (tillering / jointing / flag leaf initiation), pulses (pea, lentil, gram) (vegetative / flowering / pod formation), oat, berseem (vegetative) in Jammu & Kashmir.
- Wheat (tillering / ear head emergence), arhar (flowering / pod formation), ginger (vegetative), autumn sugarcane (vegetative), yellow sarson, mustard (flowering / capsule formation), barley, oat (tillering / ear head emergence), chick pea, lentil (vegetative / flowering / pod formation), brinjal, chilli, lady's finger (vegetative / flowering / fruiting), moong, okra(sowing) in Uttarakhand.
- Wheat (tillering / ear head emergence), late sown wheat (tillering), barley (tillering / ear head emergence), sugarcane (harvesting), new sugarcane (planting), linseed, jai (vegetative / flowering), fodder berseem (vegetative / second cutting), radish, carrot (root development / harvesting), onion, garlic (vegetative), rapeseed, mustard, pea, lentil, gram (pod formation / pod maturity) maize (flowering / pod formation / grain formation) in Uttar Pradesh.
- Wheat (tillering / jointing), sugarcane (harvesting), new sugarcane (planting), mustard (flowering / capsule formation) in Punjab.
- Wheat (booting), sugarcane (harvesting), new sugarcane (planting), mustard (flowering / capsule formation), barseem (sowing / vegetative) in Haryana.
- Sugarcane (maturity / harvesting), maize (maturity), *capsicum*, guar, vegetables (tinda, water melon, pumpkin, cucumber, coriander, bhindi, ridge gourd) (sowing / germination / seedling), potato (tuber formation / maturity), mustard (flowering / capsule formation), gram (grain maturity / harvesting), wheat (tillering / active tillering), barley (tillering), opium poppy (pre-flowering / flowering) in Rajasthan.

EAST INDIA [JHARKHAND, BIHAR, ORISSA, WEST BENGAL &SIKKIM]

- Gram, lentil (pod formation/maturity), sunflower (head formation), maize(cob formation), sugarcane (planting), potato (tuber formation), mustard (capsule formation), urad, arhar (grain formation), winter vegetables (flowering / fruiting / harvesting), wheat (panicle initiation/heading) and toria (pod formation/maturity), pigeon pea (flowering / pod formation), summer vegetables(sowing), mung, urd (sowing) in Bihar.
- Wheat (jointing stage), potato (vegetative / tuber formation), pigeon pea (pod formation), onion (transplanting), vegetables (vegetative / flowering / fruiting / harvesting), gram, linseed, lentil, pea (vegetative / flowering / pod formation), Rice (seedling), rapeseed, mustard (harvesting) in Jharkhand
- Sugarcane (germination), banana (vegetative), mustard, sunflower, sesame, cowpea (vegetative / flowering / pod formation/maturity), *rabi* groundnut (pod formation), fruit crops (planting / seedling), summer rice (land preparation / transplanting), wheat (panicle initiation), tomato (flowering to fruiting stage), black gram & green gram (flowering initiation / harvesting), green gram, summer vegetables, summer groundnut (sowing) in Odisha.
- *Boro* rice (seedling / transplanting/tillering), wheat (panicle initiation/heading), vegetable (flowering / fruiting), potato (tuberization stage), mango (flowering), tomato (flowering / fruiting), mustard (flowering /capsule formation), pointed gourd, cucumber (flowering), sunflower(flowering), groundnut (sowing), sesame (sowing),chilli (flowering/fruiting) in West Bengal.
- Ginger (sprouting / early vegetative), large cardamom (vegetative / primary flowering / secondary flowering), vegetables (vegetative), rice (grain formation / maturity) in Sikkim.

CENTRAL INDIA [M.P., CHHATTISGARH]

- Ladies finger (flowering / fruiting), pigeon pea, gram (pod formation/ maturity/ harvesting), potato (maturity/harvesting), sugarcane (planting/vegetative), *rabi* vegetables (flowering/fruiting), wheat (flowering/milky/grain filling), maize (vegetative), lentil, mustard, linseed (capsule formation/maturity) in Madhya Pradesh.
- Sugarcane (planting/vegetative), pigeon pea, groundnut (pod filling/maturity), sesame (late vegetative), ginger, turmeric, papaya, mango and guava (vegetative), onion (transplanting), vegetables (transplanting / vegetative), millet (flowering), wheat (Active tillering/ flowering), niger, kulthi (vegetative) in Chhattisgarh.

NORTHEAST INDIA [ARUNACHAL PRADESH, NMM&T, ASSAM, MEGHALAYA]

- *Boro* rice (tillering / active tillering), early *ahu* rice (nursery raising / sowing), *kharif* maize (sowing), jute (sowing), cole crops (head formation / maturity / harvesting), wheat (ear head emergence / flowering), rapeseed, mustard (capsule formation / capsule maturity), potato (tuber maturity / harvesting), tomato (flowering / fruiting), *rabi* pulses viz. lentil, rajmah, pea (maturity / harvesting), summer pulses (sowing / seedling), okra (sowing / seedling), cucurbits (sowing), summer vegetables (sowing) in Assam.
- Potato (maturity / harvesting), pea (flowering / pod formation), rapeseed, mustard (capsule formation), French bean, okra (sowing) in Arunachal Pradesh.
- Potato (tuber formation), pea (pod formation / pod maturity), cauliflower, cabbage (sowing), rapeseed (flowering / pod formation), onion, garlic (vegetative / bulb formation), tomato, chilli (transplanting), beans (sowing / early vegetative), cucurbits (sowing) in Manipur.
- *Rabi* maize (vegetative), *boro* rice (tillering), cole crops (head formation / head maturity), pea, lentil, mustard (flowering / pod formation), toria (pod formation), tomato (flowering / fruiting), chilli, brinjal (vegetative) in Meghalaya.
- Cole crops (head formation / harvesting), beans (flowering / pod formation), pea, lentil (pod maturity / harvesting), tomato (fruiting / harvesting), banana (vegetative / harvesting), maize (cob formation / maturity), okra, cucurbits (sowing) in Mizoram.
- *Rabi* maize (vegetative), cabbage (head formation), mustard (capsule formation), tomato (flowering / fruiting), pea (pod maturity / harvesting), banana (fruiting), potato (vegetative / tuber formation), cucurbits (nursery raising), chilli, brinjal (transplanting) in Nagaland.
- *Boro* rice (tillering), summer brinjal, tomato (nursery raising / transplanting), potato (tuber formation / tuber maturity), pea, bean (pod formation), summer green gram and black gram (sowing) in Tripura.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- *Adsali* sugarcane and pre seasonal sugarcane (cane maturity / harvesting), *suru* sugarcane (cane maturity / harvesting) in Madhya Maharashtra and Marathwada), new *adsali* sugarcane and new pre seasonal sugarcane (early tillering), new *suru* sugarcane (planting), *rabi* jowar (grain maturity / harvesting) in Madhya Maharashtra and Marathwada), safflower (seed maturity in Madhya Maharashtra and Marathwada), maize (cob initiation / cob maturity in Marathwada and Madhya Maharashtra), gram (pod maturity / harvesting), wheat (milk / dough), summer rice (early tillering in South Konkan, in Western Ghat region and East Vidarbha), summer groundnut (germination / early vegetative in South Konkan and sowing / germination in Madhya Maharashtra, Marathwada and Vidarbha), summer bajra (sowing / germination in Pune and Nashik region) in Maharashtra
- Summer groundnut (sowing / germination / seedling / vegetative), Summer rice (seedling / transplanting), summer vegetables (sowing / transplanting / vegetative), wheat (flowering / milk / dough), gram (pod formation / grain development), cumin (flowering / grain filling / maturity), sugarcane (planting / early vegetative / vegetative), castor (spike maturity / harvesting), winter vegetables (flowering / fruiting), chilli, brinjal (fruiting / harvesting), cauliflower (head formation / maturity), potato (tuber formation), mustard (pod development / maturity), jowar (flowering / grain formation), *rabi* fennel (flowering / pod formation), fenugreek (flowering / pod formation), maize (tasseling / silking / cob initiation) in Gujarat.

SOUTH INDIA [TN, AP, KERALA, KARNATAKA, LAKSHADWEEP, ANDAMAN & NICOBAR ISLANDS]

- *Rabi* groundnut (pod development/pod maturity/harvest), *rabi* maize (tasseling/silking), sunflower (flowering / seed formation), *rabi* rice (transplanting / tillering), summer cotton (sowing), Bengal gram (pod development), red gram (pod development), cow pea and sesame (flowering / pod formation), rice fallow pulses (vegetative), sugarcane (planting/tillering) and vegetables (all stages) in Andhra Pradesh
- Cowpea, black gram and green gram (harvesting), pigeon pea (harvesting), chilli (fruiting), sunflower (vegetative), chick pea (harvesting), grapes (flowering / fruiting), October sown wheat (earhead filling), jowar (harvesting), ragi (ear head emergence), maize (cob formation/cob maturity), horse gram (flowering / pod formation), groundnut(pod formation), mango (flowering/fruit setting), sugarcane (maturity / ripening) in Karnataka.
- Coconut (Harvesting), *Puncha* rice (tillering), rubber (tapping discontinued), vegetables (sowing/ early vegetative/harvesting), *mundakan* rice (harvesting), cardamom(new planting) in Kerala.
- *Samba* rice (maturity/harvesting), thaladi (maturity/ harvesting), sorghum (maturity/harvesting), rice fallow pulses (vegetative), rainfed groundnut (flowering/pod formation), cotton (vegetative/boll maturity),sugarcane (vegetative /ratooning),maize(maturity/harvesting), red gram (pod formation), summer sorghum, maize and cotton (sowing),vegetables (fruiting) in Tamil Nadu.

Annexure III List of Varieties

Jammu & Kashmir

Onion: Pusa Red, N-53.

Knolkhol: Purple Vienna and White Vienna.

Radish: Japanese White and Minowase.

Beans:

Bush types: Contender and Arka Komal; and

Potato: Kufri Jyoti.

Delhi

Lady's finger: A-4 and Parbhani Kranti.

Spinach: Pusa Harit hybrid varieties.

Punjab:

Sugarcane: CoJ-85, CoJ-83, CoJ-64 (early maturing), COH-119, CoJ-88, CoS-8436 for mid season and CoJ-89.

Odisha

Groundnut: Smruti and JL-24, TMV-2, Devi, Phule Pragati, ICGS-44, TAG-24, TG-3 and TG 38.

Sugarcane: CO 740, CO 6304, CO7219, COT 8201, Neelamadhaba and Sabita.

Sesame: Vinayak, Kanak, Kalika, Uma, Usha.

Maize: Dhabal, Navjot, Decca, Ganga, Deccan 105, Kargil 900-M, PRO 345, Kargil 633.

Sunflower: Morden, PAC-36, KBSH, MSFH-8, SFH-7, KBSH-1, MSHF-1, MSFH-17.

Papaya: Honey dew, Kurg honey dew, coimbatore-1, Coimbatore-2, Pusa delicious, Pusa majestic, Pusa dwarf and Pusa giant.

Summer Green Gram: PDM 11, PDM-54, Pusa Baisakhi

West Bengal:

Boro Rice: Supriya, Jamini, Bhupen, IET-2233, Satabdi (IET-4786), Kitish (I.E.T.-4094), Ratna, Bikash etc.

Sesame: Rama, Tilottama, B64, B14.

Moong: Chaiti mung, Sonali, T44, PDM-84, Samrat, Basanti.

Groundnut: JL-24, J-11, AKG-12-24.

Jharkhand:

Onion: Pusa Red, Pusa Ratnar, N-53, Arka Nikatan, Arka Kalyan, Agrifound Dark Red.

Rice: IR-36, IR-64, Naveen, Lalat, MTU-1010.

Bihar:

Bhindi: Parvani Kranti, Arka Abhay, Arka Anamika, Barsha Uphar, KS 312, Okra 4, Punjab 7, Pant Bhindi 1

Summer: Maize: Suwan, Deoki, Ganga 11, Shaktiman 1 and 2

Assam

Early Ahu rice (direct seeded): Luit, Kopilee, Cauvery, Culture -1, Rasi, Lachit, Chilarai, Dichang.

Transplanted Early Ahu rice: Rasi, Soket, IR-50, IR-36, Luit, Kopilee, Cauvery, Culture -1, Panjasali, Koijapori, Kaujuli, Hasakumora.

Kharif maize: Ganga-5, NLD, Dhawal, Naviot and Diara.

Jute: JRC 321, UPC 94.

Okra: Pusa Sawani, Parvani Kranti, Arka Anamika.

Black gram: T-9, Pant U 19, UG 157, JU 78.

Green gram: Pratap, Kopergaon, T 44, AAU 34, AAU-39, SG 1, K-851 and ML-55.

Pumpkin: Arka Suryamukhi, Arka Chandan.

Ridge gourd: Pusa Nasdar, AAUJ-1, AAUJ-2, AAUC-3.

Sponge gourd: Pusa Chikni.

Manipur :

French Bean:

Dwarf type: Anupam, Pant Anupam.

Pole type: local variety (Tangkhul Hawaii).

Tripura:

Green gram: PDM 139.

Black gram: T-9, Panth Urd- 35.

Tomato: Anup.

Maharashtra

Suru Sugarcane: CO-419, COM-7125, CO-860032, CO-94012 and COM-0265 for Madhya Maharashtra and CO-86032, CO-M 7125, CO-8014, CO-740, CO-7219 for Marathwada region.

Summer sesame: AKT-101 and NT11-99.

Bajra: Shraddha, Saburi and Shanti.

Groundnut: SB11, JL286, TPG41, TAG24, TG26 and JL501.

Gujarat

Groundnut: TAG-24, GG-2, 5 & 7, TG-37-A, GG-4, GG-26, GG-20.

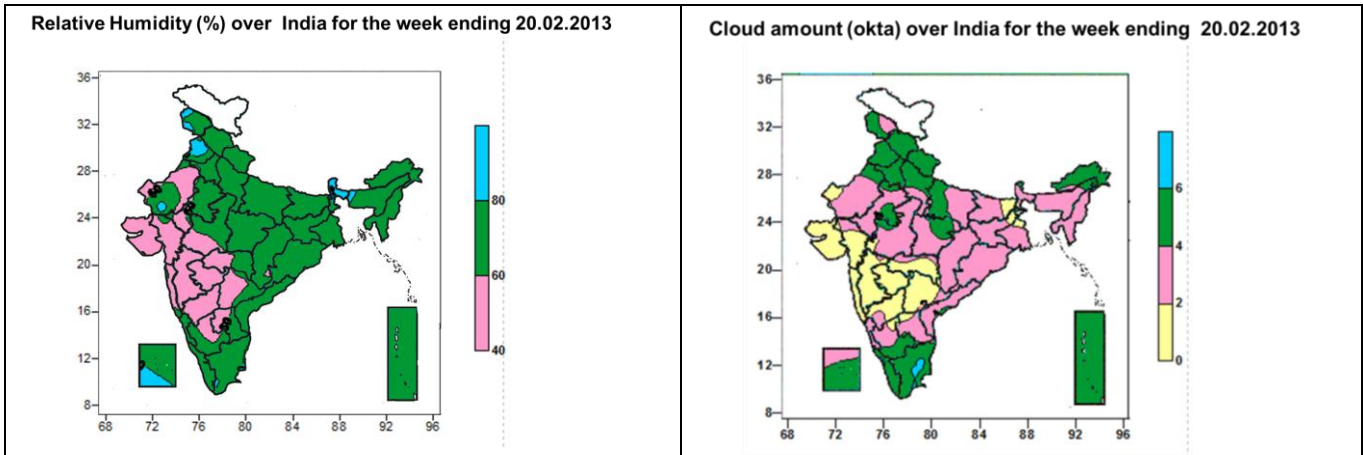
Green Gram: Guj. Mung- 3, 4.

Cowpea: Guj. Cowpea-4, 5, Pusa Falguni.

Pearlmillet: GHB-526 and GHB-558.

Annexure IV

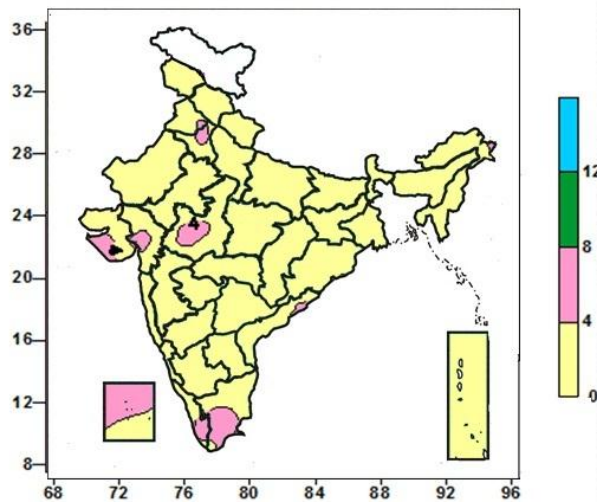
Contour maps for Relative Humidity, Cloud Amount and Wind speed for the week ending on 20.02.2013



Relative humidity ranged between 80 to 100% over many parts of Punjab, Sub-Himalayan West Bengal & Sikkim, some parts of Jammu & Kashmir, West Rajasthan, Assam, Tamil Nadu, Lakshadweep Islands, 40 to 60% over many parts of Gujarat, Saurashtra & Kutch, Maharashtra, North Interior Karnataka, Telanagana, some parts of Rajasthan, Chattisgarh, West Madhya Pradesh, South Interior Karnataka, Rayalaseema, 60 to 80 % over remaining parts of the country.

Cloud amount 6 to 8 okta over some parts of Tamil Nadu, 4 to 6 okta over many parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, West Uttar Pradesh, Kerala, Tamil Nadu, Lakshadweep and Andaman & Nicobar Islands, some parts of Rajasthan, Sikkim, Madhya Pradesh, Coastal Andhra Pradesh, South Interior Karnataka, Rayalseema, 0 to 2 okta over many parts of Gujarat, Saurashtra & Kutch, Maharashtra, North Interior Karnataka, Telanagana, some parts of West Rajasthan, Bihar, Jharkhand, Gangetic West Bengal, West Madhya Pradesh, South Interior Karnataka, Rayalaseema, 2 to 4 okta over remaining parts of the country.

Wind speed (knots) over India for the week ending 20.02.2013



Wind speed ranged between 4 to 8 knots over many parts of Tamil Nadu, Lakshadweep, some parts of Punjab, Haryana, Delhi, Gujarat, Saurashtra, Kerala, Coastal Andhra Pradesh, West Madhya Pradesh, 0 to 4 knots over remaining parts of country.